

## **GLOBAL CLIMATE CHANGE: WEST AFRICA**

## SEPTEMBER 2003

The climate change activities of USAID's West African Regional Program (WARP) seek to promote energy efficiency and minimize harmful environmental impacts as the program's 17 participating countries increase their energy use. Climate change activities also include environmental monitoring of land use and land cover in WARP's Sahel countries.

**Background.** USAID's West African Regional Program (WARP) addresses development obstacles that can be most effectively met through actions taken at a regional level. WARP's strategic objectives include economic integration, health (with a focus on HIV/AIDS prevention), food security/agriculture, and conflict prevention. WARP is managed out of Accra, Ghana, with a satellite office for the agriculture and food security team in Bamako, Mali. Countries covered by WARP include Benin, Burkina Faso, Cameroon, Cape Verde, Cote d'Ivoire, the Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, and Togo.

**Sector-Specific Climate Change Activities.** WARP's climate change activities include environmental monitoring of land use and land cover and energy activities.

West Africa Power Pool. USAID's program in West Africa promotes economic growth through regional integration. It includes training and technical assistance to increase intraregional trade in energy by furthering the development of the West African Power Pool (WAPP). WAPP is a response to the desperate energy shortage in the region and the catastrophic impact this energy shortage has on West African development. The purpose of WAPP is to produce an abundant, reliable, efficient, and affordable energy supply while attracting private sector investment through regional cooperation. The WAPP project seeks to optimize energy resource utilization; harmonize national energy development plans through interconnection of electricity power grids; and ensure security of energy supply to member states at competitive prices. Part of optimizing energy resource utilization aims to minimize harmful environmental impacts and encourage energy efficiency. Through a public-private partnership, USAID's WARP has provided \$8 million for WAPP to help leverage the efforts and resources of multiple partners in developing this viable energy market.

Regional Environmental Monitoring. The U.S. Geological Survey (USGS) Eros Data Center, working with the Agrhymet Regional Centre and Institute of the Sahel of the Permanent Interstate Committee for the Control of Drought in the Sahel (CILSS), has prepared a land use and land cover (LU/LC) monitoring analysis for eight of the nine Sahelian countries within the CILSS region (Cape Verde is not currently part of the study). USGS and CILSS are now expanding this project to include additional member countries of the Economic Community of West African States, namely Benin, Cote d'Ivoire, Ghana, Guinea, Liberia, Nigeria, Sierra Leone,

## WARP's partners in climate change activities include\*:

- Associates for International Resources and Development (AIRD)
- Nexant
- · Purdue University
- Indiana Public Regulatory Commission
- PA Consulting
- Economic Community of West African States (ECOWAS)
- Environmental Defense (EDF)
- · National electrical utilities
- · Energy ministries of member states
- United States Energy Association (USEA)
- · World Bank

## Partners in WARP's environmental monitoring program include\*:

- U.S. Geological Survey (USGS) Eros Data Center
- Agrhymet Regional Centre of the Permanent Interstate Committee for the Control of Drought in the Sahel (CILSS)
- \* Because partners change as new activities arise, this list of partners is not comprehensive.

and Togo. The LU/LC trends analysis effort is helping to quantify the impacts of both human- and climate-driven changes of the last 35 years across the Sahel region. The program is monitoring major trends in natural resources and makes long-term projections to support regional and national environmental analysis and policymaking. The effort also provides technical assistance for image processing, using satellite imagery for land productivity monitoring, and staging geographic data on the Internet. In addition, it is developing analytical tools to use with the Advanced Very High Resolution Radiometer Normalized Difference Vegetation Index for applications at I-km resolution in land degradation/land improvement, short-term drought assessment within the context of food security, and early warning systems.

For more information on WARP's climate change activities, visit the USAID Web site at:

• http://www.usaid.gov